DEEPWATER NEWS

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Human factors play major role in Deepwater Design

By now most people who know about the Integrated Deepwater System Program realize it's a recapitalization project that will ultimately upgrade and replace the service's aging fleet of cutters and aircraft and modernize and improve our information gathering and sharing capabilities, as well as the infrastructure that supports these assets and abilities.

But many don't realize that one of the factors driving the Deepwater Program is the human factor. Specifically, what will the Deepwater Program mean to the operators in the field, the men and women who spend days and weeks at a time on assignment, deployed on or in support of operational missions? How will the Deepwater Program impact the average Coast Guardsman's quality of life?

Adm. James M. Loy, Commandant of the Coast Guard, addressed quality of life issues in recent years by streamlining decisions and recommendations through his "Stroke of the Pen" approvals, including reduced workloads for crews involved in flight quarters, accelerated installation of communications networks on cutters to allow for email with family members on shore and increased Service-Wide Exam points for enlisted members assigned to afloat units.

"These quality of life changes had a great impact on our existing assets and crews," said RADM Patrick M. Stillman, Program Executive Officer of the Deepwater program. "The Integrated Deepwater System approach allows us to address these personnel issues from the deckplates up, improving and protecting the quality of life of our men and women for the next 50 years."

Human engineering and quality of life questions are being asked before the ships have been designed and the aircraft have been chosen. Human factors have been a part of the program since its inception, and the System Performance Specification, the guideline industry uses to create the Integrated Deepwater System, clearly states that the Deepwater solution shall incorporate physical, mental, workload, performance limitations and other human factors engineering into the proposed designs.

In order to find out what human resources issues play a role in a member's decision to stay in or depart the service, members of the Integrated Logistics Support Technical Assessment Team reviewed exit surveys and their respective comments and gathered commanding and executive officers to listen to their challenges and successes. That research showed one overwhelming concern: Members need an improved quality of life, particularly while deployed.

"We found that quality of life issues are an important part of recruiting and retention when members are trying to decide whether or not to stay in the Service," said Elizabeth Lederer, Technical Director for Systems Supportability. "Our objective is to make the Coast Guard an employer of choice and retain quality people who enjoy a rewarding career.

"One of those goals," she continued, "is to make sea duty more attractive."

Habitability is one of the areas the competing industry teams are required to address in their bid to win the deepwater contract. Improved quality of life on cutters may include an increased ability to communicate with family members on shore, dedicated exercise areas, the ability to participate in long distance learning programs and larger living spaces. All cutters will be required to support a 50/50 mix of men and women, which could result in less people per berthing space.

Ship design and materials will also contribute to an improved quality of life, including the potential for ergonomically correct working spaces and ships that are easier to clean and maintain.

Crewing concepts are geared toward established Coast Guard operations, with special emphasis on personnel requirements to meet boarding team standards. Unlike past acquisitions that used US Navy crewing schemes, Deepwater cutters will be crewed to meeting all of the service's 14 federally mandated missions, all while considering ship to shore rotations, days at sea and alternative crewing schemes.

"We know that we have to provide a better life for the people on the front line," Lederer said. "Whether it's a safer working environment for our air and shipboard crews or better access to health services for our family members, we're considering the personnel impacts in every aspect of the design."

The Integrated Deepwater System contract is scheduled for award in the third quarter of this fiscal year. The contract will be awarded to one prime integrator, who will oversee the efforts of ship designers and builders, aircraft manufacturers, technology and information sharing companies, human factors engineers and logisticians. The award of the Deepwater contract will begin a Coast Guard-industry partnership that will update the existing fleet of aircraft and cutters, and shape the future of the Coast Guard.

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